

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026389**Date Inspected:** 21-Sep-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 10W PP88 W4 Lifting Lug Hole (Exterior)
2. 11W 12W C1 C1/C2 (Interior)
3. 11W 12W E1/E2 (Interior)
4. 11W 12W D1/D2 (Interior)
5. 11W PP105 Stud Welding (Exterior)

1. 10W PP88 W4 Lifting Lug Hole (Exterior)

The QA inspector observed ABF welder Mike Jimenez ID# 4671 performing Shielded Metal Arc Welding (SMAW) in the 1G flat position on Lifting Lug Hole (LLH) #2 located at 10W PP88 W4. The QA inspector verified the fit up of the joint and found it to be satisfactory. The QA inspector observed the QC inspector identified as Pat Swain monitoring the progress to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU.

The parameters were recorded as (Amperes=180).

The QA inspector made subsequent observations throughout the shift to monitor quality and the QA inspector noted that the work appeared to be in general conformance with the contract documents.

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### 2. 11W 12W C1 C1/C2 (Interior)

The QA Inspector performed Ultrasonic Testing utilizing a G.E./Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

### 3. 11W 12W E1/E2 (Interior)

The QA Inspector performed a Magnetic Particle Test (MT) on Side Plate E1/E2 on the interior of the OBG. The QA Inspector utilized the MT procedure SE-MT-D1.5-CT-100 Rev. 4 to test 10% of the weld to verify the weld and testing by QC meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents. Upon completion of the MT, the QA Inspector performed Ultrasonic Testing utilizing a G.E./Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

### 4. 11W 12W D1/D2 (Interior))

The QA inspector observed the QC inspector identified as Jesse Cayabyab perform Ultrasonic Inspection on Side Plate D1/D2 located at 11W 12W on the interior of the OBG. The QA inspector verified that the proper procedure was utilized as well as correct technique. The testing revealed the following indications: D1 y+640 14mm deep, y+750 8mm's deep, y+1220 9mm's deep, y+1470 17mm's deep, D2 y+2540 13 mm's deep, y+2640 10mm's deep y+3070 17mm's deep. The QA inspector verified the findings and noted that the work appears to be in general conformance with the contract documents.

### 5. 11W PP105 Stud Welding (Exterior)

The QA Inspector continuously observed ABF operator Julian Paulk ID#7796 performing Stud Welding in the down hand position of 7/8 studs at the following locations; 11W PP105, 11W PP107, and 11W PP109. The QA Inspector observed the QC Inspector William Sherwood as being present in order to monitor the progress and ensure the welding parameters were in compliance with ABF-WPS-D15-5001 Stud. Upon placement of each stud, the weld was visually inspected for complete fusion (360 degrees) at the base. The work was completed on this date and the QA Inspector noted that the work appeared to be in general conformance with the contract documents.

### Summary of Conversations:

At the beginning the shift the QA inspector met with QC inspector William Sherwood and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing.

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### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Frey,Doug	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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